they move together as a single structure.

Powered side belts 106 and 107 are adjustably provided depending downwardly from the substantially horizontal legs of the L-frame members 156 and 157. Conventional resettable clamp mechanisms are provided to make such an adjustable connection. Thus, the powered side belts 106 and 107 can be adjusted according to the position of the load path 101 and the width of the load L which is to pass along the load path 101.

An intermediate supporting structure 158 is also provided which is connected with the L-frame members 156 and 157. The intermediate supporting structure 158 further movably supports a shaft support and bearing structure 158A which in turn supports the rotating shaft 112 over the load path 101. The support and bearing structure 158A is vertically adjustably connected to the intermediate supporting structure 158 by a lead screw arrangement 160 which can be driven by a crank 159. The lead screw 160 is fixed in axial position, so that rotation thereof reacts with a non-rotational threaded portion of the support and bearing structure 158A to thereby cause the support and beating structure 158A to move vertically along the lead screw 160. Thus, the rotating shaft 112 is vertically adjustable with regard to the L-frame members 156 and 157, which are themselves vertically adjustable with regard to the remainder of the supporting apparatus 154, as discussed above. By this, not only are the powered side belts 106 and 107 adjustable horizontally and vertically, the rotating shaft 112 is vertically adjustable with respect to the powered side belts 106 and 107.

The elements of the rotating shaft 112 are the same as that described above with regard to the FIG. 1 embodiment. Specifically, a lever 116 is provided including a pair of opposed arms to extend within the load path 101 for a particular load L. The appropriate sensors, pneumatic connections and control systems are also provided in a similar manner. Since the description and operation of these elements are exactly the same as that described above, no further explanation will be provided at this point for those features.

It is also preferable that the intermediate supporting structure 158, the support and bearing structure 158A, and the rotating shaft 112 be rotationally adjustable as a unit about an axis that extends perpendicular to the supports 109 and 110 and over the load path 101. As shown in FIG. 20, 45 this can be accomplished by providing a pivot pin 190 extending from the vertical portion of the intermediate structure 158 that is pivotally supported by a bearing surface provided on the vertical portion of the joint structure comprising L-frame members 156 and 157. The pivot pin 190 50 can be conventionally secured to the bearing surface, such as by C-clips and the like. Moreover, the rotational connection may include means for locking the intermediate structure 158 relative to the L-frames 156 and 157 in multiple positions. Such locking means can comprise any of known 55 friction lock, detent lock or the like mechanisms.

Another manner of providing such a rotational adjustment is illustrated in FIGS. 21 and 22. This manner is further advantageous in that the L-frame members 156 and 157 are not only vertically adjustable with respect to the supporting 60 frame 154, they are also rotatable as a unit about the axis extending perpendicular to the supports 109 and 110 and extending over the load path 101. Moreover, the side belts 106 and 107 are also adjustable with the L-frame members 156 and 157. To do this, a plate 169 is operatively positioned 65 between the uprights 109 and 110 and the L-frame members 156 and 157. The plate 169 includes elements 175 and 176

which are slidably engaged within the slots S provided on the uprights 109 and 110. It is the plate 169 which is thus vertically adjustable with regard to the uprights 109 and 110 by a conventional adjustment mechanism. The L-frame members 156 and 157 is further connected by a back plate 180 which connects between the substantially vertical portions of the L-frame members 156 and 157.

Between the backing plate 180 and the plate 169, a pivot pin 182 and bearing structure 170 are provided so that the backing plate 180, and thus the L-frame members 156 and 157, are pivotal about the plate 169. Guide pins 171 and 172 are also provided extending from the backing plate 180 to engage within slots 173 and 174 of the plate 169. The slots 173 and 174 define the pivotal limits of the L-frame members 156 and 157 about the pivot pin 182. The backing plate 180 and the plate 169 can be conventionally locked in pivotal positions with respect to one another by any conventional locking means that may be provided integral with the pivot pin 182 or on either or both of the pins 171 and 172. This arrangement allows the apparatus 108 of the present invention to be inclined to follow a load path 101 that is not parallel to the floor on which the apparatus is located.

Again, the rotating shaft 112 and its drive motor 113, a belt 114, and a brake-clutch 115, as described above are all supported from the support and bearing assembly 158A so as to be movable together with one another. Moreover, the sensor mechanisms such as shown in FIGS. 23–25 are also provided on the rotating shaft 112.

With regard to the sensor controlling the cylinders 132 for the pins 130 and 131, a similar sensor as that shown in FIG. 24 and described above is utilized. With regard to the sensor for controlling the cylinders within the lever 116 for cutting and extending the bodies thereof, a similar sensor as that illustrated in FIG. 25 and described above is also utilized. However, for controlling the brake-clutch mechanism 115, it is contemplated to use a sensing mechanism such as that illustrated in FIG. 23 for controlling the activation and reactivation of the clutch 115 and the braking thereof.

Specifically, the cam 168 includes two lobes 168A and 168B which are sensed by a single inductive sensor 167. This sensing means is a substitute for the sensor 33 described above which triggers the clutch on and off for moving the lever 16 through a rotation of approximately 180°. In this case, both of the lobes 168A and 168B when sensed by the inductive sensor 167 deactivate the clutch of the mechanism 115 and activate the braking of shaft 112. When a load L hits the lever 116, the one of the lobes 168A and 168B which is directly in front of the inductive sensor 167 is rotated past the sensor 167 and the clutch of the mechanism 115 is activated and the shaft 112 is rotated by the motor 113. Such rotation continues for approximately 180° (or 360° for the one arm version) until the next of the lobes 168A or 168B moves to a position directly in front of the inductive sensor 167.

It is understood that many other variations and embodiments for the present invention are possible which are within the scope of the present invention. Any of the adjustable mechanisms of the subject apparatus could be power driven or manually driven. Moreover, many other types of sensor mechanisms can be utilized for triggering and controlling the operation described above.

I claim:

1. Apparatus for applying adhesive handles comprising a leading portion and a trailing portion to loads driven along a path, said apparatus comprising:

a lever having at least one arm in a position across the